

# Clinical Practice and Research – Do They Mix?

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# *Objectives*

- Discuss the benefits and challenges of nursing involvement in clinical research
- Develop questions pertaining to the clinical research process
- Identify avenues to become involved in clinical research

## Clinical Research

# Strong Nursing

“Evidence drives our decision-making in everything we do and every day we do it.”

*Gail Ingersoll, EdD, RN, FAAN, FNAP*



# Clinical Research

- Inquiry designed to generate knowledge in issues of importance to patient care and/or nursing as a discipline



# Why participate in CLINICAL RESEARCH?

“...advancement of the substantive base of practice...”

Synder 1995



## Participation in research is often of lowest priority

- Lack of administrative support
- Lack of peer support
- Lack of knowledge
- Time constraints
- Demands of patient care
- Responsibility
- Funding → who is paying for this???

Lacko, L. 2000



# *Why Participate?*

- Foster awareness of the importance of the project
- Facilitate understanding of the research process
- Develop unit-based projects
- Assess areas of staff interest
- Participate in the decision-making of policy, procedures, equipment procurement
- Showcase the impact of the project

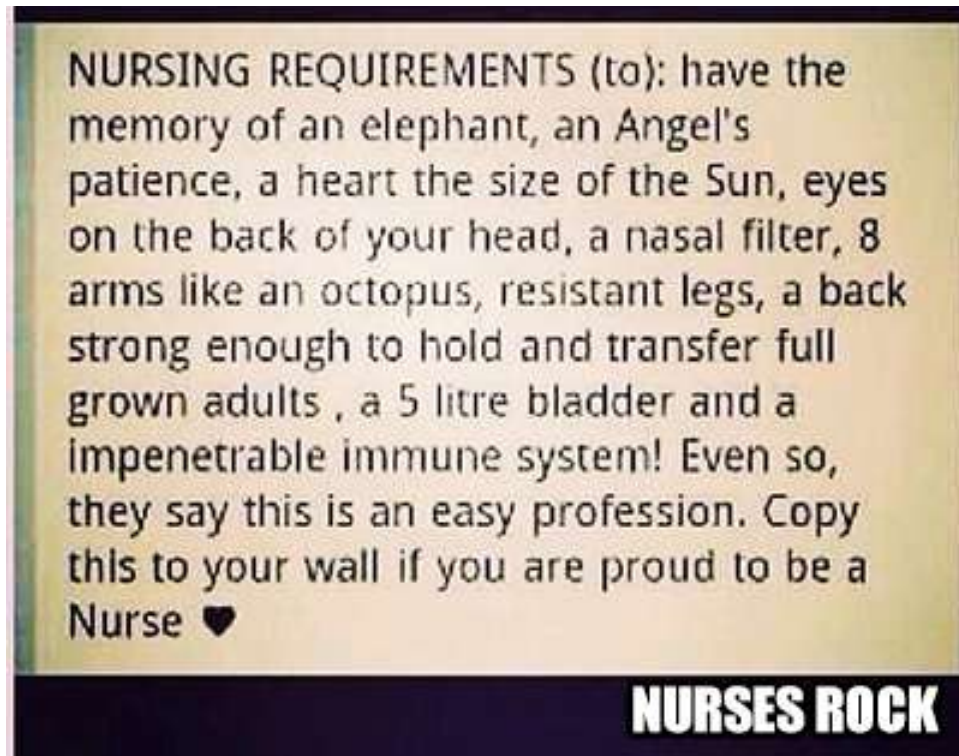
You have questions –  
participate in getting  
the answers!



# *Why Participate?*

- Key collaborators in development, design and implementation
- Identify real or presumed limitations associated with the clinical environment
- Identify real or presumed 'burden' of the protocol
- Ensure high quality care for participants
- IRB
- Ethical Issues

# Who Better???





# *Why Participate?* **Why Not?**

- Knowledge of disease processes, medication side effects
- Frequent nursing assessments
- Clinical practice skills
- Always learning
- Mobile
- Organization skills
- Team collaboration
- Data collection and organization

- Use of nursing skills, assessment and knowledge



## Stealth Investigator



Obtain information / data

Use language that expresses 'value' to patient's and families

Follow-Up and Follow-Through

# *We Have Skills*

Nurses can diagnose  
DKA, C.Diff and a GI  
bleed with their noses  
before entering a  
patient's room. (Not  
all our superpowers  
are glamorous.)



somee cards  
user card

# Clinical Research



# Nursing Influence

[Congenit Heart Dis.](#) 2013 Jul-Aug;8(4):343-51. doi: 10.1111/chd.12035. Epub 2013 Jan 30.

**Resting energy expenditure at 3 months of age following neonatal surgery for congenital heart disease.**

[Irving SY](#)<sup>1</sup>, [Medoff-Cooper B](#), [Stouffer NO](#), [Schall JL](#), [Ravishankar C](#), [Compher CW](#), [Marino BS](#), [Stallings VA](#).

[JPEN J Parenter Enteral Nutr.](#) 1996 Jan-Feb;20(1):71-3.

**Early enteral feeding in the pediatric intensive care unit.**

[Chellis MJ](#)<sup>1</sup>, [Sanders SV](#), [Webster H](#), [Dean JM](#), [Jackson D](#).

[Crit Care Nurse.](#) 2011 Dec;31(6):27-35. doi: 10.4037/ccn2011934.

**Nurse-led implementation of a safe and effective intravenous insulin protocol in a medical intensive care unit.**

[Khalaila R](#)<sup>1</sup>, [Libersky E](#), [Catz D](#), [Pomerantsev E](#), [Bayya A](#), [Linton DM](#), [Sviri S](#).

[Nurs Crit Care.](#) 2014 Nov;19(6):292-303. doi: 10.1111/nicc.12055. Epub 2013 Nov 26.

**Paediatric intensive care nurses' and doctors' perceptions on nurse-led protocol-directed ventilation weaning and extubation.**

[Tume LN](#)<sup>1</sup>, [Scally A](#), [Carter B](#)

[J Nurs Adm.](#) 2013 Jul-Aug;43(7-8):394-402. doi: 10.1097/NNA.0b013e31829d61e5.

**The effect of continuity in nursing care on patient outcomes in the pediatric intensive care unit.**

[Siow E](#)<sup>1</sup>, [Wypij D](#), [Berry P](#), [Hickey P](#), [Curley MA](#)



“Researchers have got to learn that they are dealing with human beings NOT ‘subjects’ if they expect to do good research.”

Mrs. Byrd, a community member

- As Nurses we know TRUST is key to attaining and establishing relationships
- TRUST is paramount in clinical research



I wear bodily fluids that aren't mine,  
I work weekends &  
holidays, I get  
screamed at & have my  
hands in other peoples  
orifices. Tell me again how  
hard you work?

som<sup>ee</sup>cards  
user card



# *Clinical Research*

## *Barriers to Participation*

### ➤ Roxburgh, 2006

Focus groups and single person interviews

$N = 35$

- Generally receptive to clinical research participation
- Restrained:
  - time
  - lack of peer support
  - decreased knowledge and skills related to the research

# *Barriers to Participation*

## ➤ Lume, 2013

Cross-sectional electronic survey

$N = 36$  (90% nursing response rate)

- Generally positive response to the protocol
- Inappropriate patient for the protocol
- High clinical workload
- Lack of support (medical staff, APNs, peer staff)
- Restrictive nature of the protocol



# Pediatric Nurses Perceptions of the Impact of Clinical Research Protocols on the Deliver of Nursing Care in the Intensive Care Unit

- Method:
  - In-person, semi-structured interviews
  - Pre-set interview script
- Sample:
  - 20 ICU nurse volunteers



## ➤ Design:

- Qualitative, descriptive study

## ➤ Nursing Staff ( $N=17$ )

- PICU / CICU
- Average 5 years practice

## ➤ Themes

- Time Constraints
- Increase in number of 'tasks' to do for the study which takes away from patient care
- Often involves increased amount of lab work
- Nursing staff was not educated on the various protocols
- Responsibility

## Perceptions

- Physicians (PIs) felt it was the nurses 'job' to participate
- The protocols did not account for 'nursing tasks'
- Nurses were not included in the design many expressed resentment



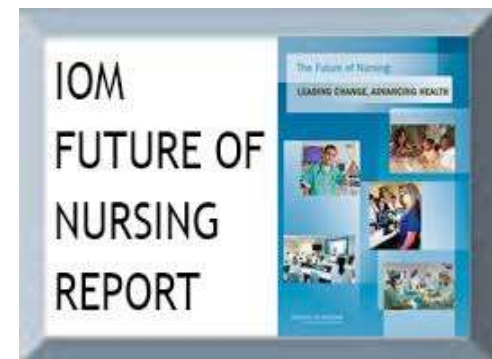
# Outcomes

- Nurse participation in every protocol (PICU) from design
- Central binder with a 1 – 2 page description of active protocols and nursing responsibility
- Multiple signs around the units with information on the protocol; who and how to contact with questions
- Intermittent updates and debriefing with nursing staff on study progress, enrollment, data collection, outcomes
- Increasing nurse involvement in dissemination of results
- Support for nurses to become PIs

# *IOM Report on the Future of Nursing*

- Our current healthcare system needs to be transformed to meet patient needs of 21st century
- Nurses are uniquely positioned to fulfill this role
- We will need to redefine our profession to reach this goal

[http://books.nap.edu/openbook.php?record\\_id=12956](http://books.nap.edu/openbook.php?record_id=12956)



# RWJF

*“Through the Initiative, RWJF continues to support the research agenda set forth by the report (IOM) and implement the recommendations in the areas of nurse training, education, professional leadership, and workforce policy.”*

<http://thefutureofnursing.org>





## ORIGINAL ARTICLE

### Resting Energy Expenditure at 3 Months of Age Following Neonatal Surgery for Congenital Heart Disease

Sharon Y. Irving, RN, PhD,<sup>\*,†</sup> Barbara Medoff-Cooper, RN, PhD,<sup>\*,†</sup> Nicole O. Stouffer, MS,<sup>‡</sup> Joan I. Schall, PhD,<sup>§</sup> Chitra Ravishankar, MD,<sup>\*\*\*</sup> Charlene W. Compher, RD, PhD,<sup>\*</sup> Bradley S. Marino, MD,<sup>††</sup> and Virginia A. Stallings, MD<sup>§</sup>

### Nutritional Deficiencies in Pediatric Critical Illness

Sharon Y. Irving, PhD, RN, and Maria R. Mascarenhas, MBBS



What, When,  
How Do We  
Feed These  
Patients????



# *Nursing Practice*



**Components of the Role**



# *Clinical Question*

What is the number of NG tubes in place on a given day in hospitalized pediatric patients?

Answer:

Design and execute a study to assess the number and determine how tube location is verified



# Perspective

- Many nurses have placed NGTs
- Is there ever a doubt as to tube location?

## Clinical Project

### NOVEL Project

*(New Opportunities for Verification of Enteral tube Location)*

- *Determine effective, practical, best practices related to placement and verification of NG/OG tubes*
- *Development of new knowledge*
- *Dissemination of the knowledge across disciplines to improve clinical practice*



# *Clinical Practice → Clinical Research*

- Multi-site prevalence study to determine number of enteral tubes in hospitalized children on a given day
  - How many tubes are there
  - What type of tubes (NG/OG/Transpyloric)
  - What methods are used to verify placement
  
- Preliminary Results
  - 60+ sites
  - >8000 data points
  - 65% NGTs / 21% OGTs / 13% Transpyloric
  - 23% use auscultation as primary method of verification

# *Clinical Interest → Clinical Research*

## Nutrition Support during Critical Illness in Infants and Children

### ➤ Question(s):

- How do we approach initiation and advancement of enteral feedings in critically ill children
- How long (days) are patients NPO following PICU admission
- How / Does this effect PICU course, LOS and patient outcomes

### ➤ The challenge

- Recognized data extraction is a challenge
- Develop a systematic way to extract the data *while* developing a method to assess and address NPO status

- “NINR’s Strategic Plan seeks to harness the strengths of nursing science to power an ambitious research agenda that will meet current and future health care needs and anticipate future health challenges and priorities.”



<http://www.ninr.nih.gov/aboutninr/ninr-mission-and-strategic-plan#.VFBWW0uRe0u>

# *AACN Research Vision & Mission*

## ➤ **Research Agenda**

- Culture of Inquiry
- A culture of inquiry fosters critical care nursing research driven by patient needs. A culture of inquiry will exist when:
  - Nurses move away from rituals in practice.
  - Nurses questioning their practice is not only accepted, but expected.
  - Change is the norm.
  - Practice reflects ongoing evaluation.
- Nurses seek answers to their questions and articulate and teach the rationale for their practices to others.

<http://www.aacn.org/wd/practice/content/research/research-mission-and-vision.pcms?menu=practice>

# ANA Aligned with AHRQ

## ➤ Agency for Healthcare Research and Quality (AHRQ)

AHRQ's mission is to improve the quality, safety, efficiency, and effectiveness of health care for all Americans. An agency within the Department of Health and Human Services, AHRQ supports research that improves the quality of health care services.

<http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/PatientSafetyQuality/Quality-Organizations/AHRQ.html>

# American Association of Colleges of Nursing

- *“Nurse researchers bring a holistic perspective to studying individuals, families, and communities involving a biobehavioral, interdisciplinary, and translational approach to science. The priorities for nursing research reflect nursing's commitment to the promotion of health and healthy lifestyles, the advancement of quality and excellence in health care, and the critical importance of basing professional nursing practice on research.”*

<http://www.aacn.nche.edu/publications/position/NsgResearch.pdf>





## Collaborate

- Interdisciplinary clinical research team
- Learn from colleagues who learn from you
- Each discipline brings their area of expertise to the table



# *Resources*

## Don't take on the world

- Check internally (e.g. Hospital, Nursing division, Hospital foundation)
- Explore membership organizations
- Explore disease specific organizations (e.g. Crohns & Colitis Foundation)
- Explore foundations (e.g. Gerber Foundation)
- Federal Grants
- Industry Support

# *Support*



**T**ogether  
**E**veryone  
**A**chieves  
**M**ore

*And Now...*

What ideas do you have for clinical research projects?

What will it take to get your ideas from thoughts to a clinical project?

Who will you collaborate with?

# *Points to Consider:*

- Everyone has the potential to be involved with clinical research
- The process of clinical research is rigorous and intentioned to identify and address questions and generate knowledge that affect clinical care and/or nursing as a discipline
- It is a 'team sport'
- Often low priority for nurses → how do we raise the priority bar?
- Collaborate and *GO FOR IT*

“To do what nobody else will do,  
a way that nobody else can do,  
in spite of all we go through;  
that is to be a nurse.”

– Rawsy Williams

# *THANK YOU!*

- Thanks to the LHVHN Research Planning Committee
- University of Pennsylvania
- The Children's Hospital of Philadelphia
- All the children and families I continually learn from
- All of you for your time

*Thank  
You*